Code documentation

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Purpose:

- There is no useful documentation about the E872 analysis and Monte Carlo Code. To do a personal analysis, we need to know how to use certain routines/ include files.
- To write our theses, we need to understand how vertexing and tracking works, what the ideas behind the code are, how those ideas have been realized.
- If we write a new routine, we cannot check if something similar already exists.

Goals:

- To document the E872 analysis libraries:
  - The flow of the analysis need to be laid out
  - Concepts behind certain libraries need to be explained
  - Each library needs to be explained.
  - The routines in each library should be listed.
  - Important or central routines need to be explained.
  - Each include file should be explained.
  - Important common blocks should be explained, and their usage should be demonstrated.
  - Each routine needs to be made available for browsing.
- To document the E872 Monte Carlo code:
  - The flow of the Monte Carlo needs to be explained
  - Important routines need to be documented
  - Important concepts need to be explained (e.g. how does the neutrino generation work?)
  - Important include files/common blocks need to be documented
  - Each routine needs to be made available for browsing.

Method:

- A web page has been created at http://mnhepw.hep.umn.edu/~schwier/new/e872/e872tricks.htm.
- It contains information about analysis and Monte Carlo code.
- Bruce and Alex have been contacted to provide information about tracking, vertexing (STAR).
- The UVM repository has a script that creates web pages. This has been modified.
  Now each analysis routine is available for browsing on the web.
- Changes in certain libraries will be on the web page (Rosie field documentation (soon), new SF decoder, new SF MC).
- Each analysis include file is explained.
- Important analysis common blocks (hits, final tracks) are explained in more detail.
- Large building blocks of the Monte Carlo are publicly available (Lepto, Geant)

Results:

- The web page exists

Outlook for completion

- The web page is not complete yet
- It needs more contributors and users
- We need more contributions
- We need more info about the Monte Carlo